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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/288,038	04/08/1999	MITSUO NIIDA	35.C13444US	6992
5514	7590	02/26/2004	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO			ABELSON, RONALD B	
30 ROCKEFELLER PLAZA			ART UNIT	
NEW YORK, NY 10112			PAPER NUMBER	

2666

DATE MAILED: 02/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/288,038

Applicant(s)

NIIDA ET AL.

Examiner

Ronald Abelson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4,7,17-20,27-30 and 32-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,7,17-20,27-30 and 32-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/12/2003 has been entered.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4, 19, 20, 27, 31-33, and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malik (US

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5,938,735) in view of Housel (US 6,453,343) and further in view of Sachauchi (US 5,239,537).

Regarding claims 1, 20, 32, and 37, Malik teaches a method and apparatus for a data communication system (fig. 4). The system comprises a controller (fig. 4 box 24), a destination node (fig. 4 box 160) including an input register (fig. 5 box 290, col. 9 lines 57-59, col. 10 lines 44-47), a source node (fig. 4 box 100) including an output register (fig. 5 box 290, col. 9 lines 57-59, col. 10 lines 44-47).

The controller is adapted to access the registers (fig. 4 box 24, identify the common attributes, col. 8 lines 30-33).

The controller is adapted to obtain information about a communication capability of said source node from the first output register (fig. 4 box 14, identify the common attributes, col. 8 lines 29 - 34), obtain information about a communication capability of said destination node from the first input register (fig. 4 box 20, identify the common attributes, col. 8 lines 29 - 34), to select a first or second communication protocol using the information (modified G3 protocol, col. 8 lines 30 - 35). In this example the modified G3 protocol since the output terminal is configured to use only this protocol. However, Malik teaches the terminals being configured to accept multiple protocols (col. 8 lines 23-27).

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The controller sets a logical connection between the source node and the destination node (allocate the B channel resources, col. 8 lines 29 - 34).

Although Malik teaches source and destination registers and selecting a common protocol between the source and destination, the reference is silent storing information for the communication protocol selected by said controller and information for the logical connection set by said controller in the second output register and to store information for the communication protocol selected by said controller and information for the logical connection set by said controller in the second input register.

Housel teaches in the event that a connection is lost, storing information about the communication protocol at the source and destination nodes in a register (fig 6 box 104, fig. 7 box 118, col. 14 lines 64-66, col. 15 lines 56-58). The examiner equates Housel's copying protocol cache to temporary cache with the applicant's storing information indicating a communication protocol selected by a controller of a communication system.

Therefore it would have been obvious to one of ordinary skill in the art, having both Malik and Housel before him/her and with the teachings [a] as shown by Malik, a system for

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identifying the common communication attributes of the destination and source terminals, and [b] as shown by Housel, storing information about the communication protocol at the source and destination nodes, to be motivated to modify the system of Malik by storing the communication protocol selected by the controller at protocol caches located at the source and destination. This would improve the system of Malik, by allowing the user to benefit by being able to use the protocol cache of the previous session rather than restarting with a "cold" start (Housel: col. 14 lines 23-28).

The combination of Malik and Housel is silent on storing information about the selected logical connection set by the controller in a register.

Sachauchi teaches storing information about the selected connection set by the controller in a register/memory of each switching node (col. 3 lines 27-30).

Therefore it would have been obvious to one of ordinary skill in the art, having both the combination of Malik and Housel and Sachauchi before him/her and with the teachings [a] as shown by the combination of Malik and Housel, a system for identifying the common communication attributes of the destination and source terminals, and [b] as shown by Sachauchi, storing information about the selected connection set by the

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controller in a register/memory of each switching node, to be motivated to modify the system of the combination of Malik and Housel by storing information about the logical connection in a second register at the source and destination nodes. Adding a second register to each node can perform this modification. This would improve the system by allowing the system to retrieve the logical connections in event of a link failure.

Regarding claims 4, 27, 33, and 38, the controller is adapted to select a communication protocol using a broadcast communication. Note Malik teaches G3 protocol (Malik: modified G3 col. 7 lines 23-31). G3 is well known in the art to be a broadcast protocol (Krishnaswamy US 5,999,525: DETX (3209) last sentence).

Regarding claims 19 and 31, the object data includes image data (Malik: col. 6 lines 37-41).

4. Claims 7, 27, 33, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Malik, Housel, and Sachauchi as applied to claims 1, 20, 32, and 37 above, and further in view of Kim (US 6,128,292).

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Although Malik teaches ISDN (col. 4 line 54 - 56), the reference is silent on controller is adapted to select a communication protocol that does not have broadcast communication.

Kim teaches multicasting in an ISDN environment (col. 1 lines 12-15).

Therefore it would have been obvious to one of ordinary skill in the art, having both the combination of Malik, Housel, and Sachauchi and Kim before him/her and with the teachings [a] as shown by the combination of Malik, Housel, and Sachauchi, a system for identifying the common communication attributes of the destination and source terminals, and [b] as shown by Kim, multicasting in an ISDN environment, to be motivated to modify the system of the combination of Malik, Housel, and Sachauchi by allowing the controller to select an multicast protocol supported by ISDN. Any ISDN supported multicast protocol can perform this function. This would improve the system by giving the system the flexibility to perform broadcasting as well as multicasting.

5. Claims 17, 29, 35, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of



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Malik, Housel, and Sachauchi as applied to claims 1, 20, 32, and 37 above, and further in view of Browning (H1,917)

Malik teaches the communication line between the source controller and destination is a wire (fig. 4 lines 15, 17).

However, the system of Malik assumes one processor is sufficient to support the load between the source and destination.

Brown teaches multiple processors (fig. 2 switching modules 16) connecting to source (fig. 2 box 18) and destination modules (fig. 2 box 20) via serial buses (fig. 1 bus 1, 3).

Therefore it would have been obvious to one of ordinary skill in the art, having both Malik, Housel, and Sachauchi and Brown before him/her and with the teachings [a] as shown by Malik, Housel, and Sachauchi, a system for identifying the common communication attributes of the destination and source terminals, and [b] as shown by Brown, multiple processors connecting to source and destination modules via serial buses, to be motivated to modify the system of Malik, Housel, and Sachauchi by replacing the single processor of Malik (fig. 4 box 220) with two or more processors in parallel and connecting the processors to the source and destination terminals via serial buses. In addition load-balancing software within the source terminal (fig. 4 box 101) would be needed to balance the load

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between the processors. This would improve the system by allowing the system to process the data when the data required for processing exceeds the capacity of a single processor.

6. Claims 18, 30, 36, 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Malik, Housel, and Sachauchi as applied to claims 1, 20, 32, and 37 above, and further in view of Hamadani (US 6,134,628).

Although Malik teaches communication uses the G3 protocol (modified G3, col. 3 lines 28-29), the system is silent on the communication conforming to the IEEE 1394-1995 standard.

Hamadani teaches a computer communicating data conforming to the G3 protocol (fig. 1 box 102, col. 3 lines 29-33). The computer is connected to a secure interface card (fig. 1 box 104). The card contains an IEEE-1394 bus (fig. 2 box 218, col. 4 lines 13-18).

Therefore it would have been obvious to one of ordinary skill in the art, having both the combination of Malik, Housel, and Sachauchi and Hamadani before him/her and with the teachings [a] as shown by the combination of Malik, Housel, and Sachauchi, a system for identifying the common communication attributes of the destination and source terminals, and [b] as shown by Hamadani, the interoperability of the G3 protocol and IEEE-1394

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standard, to be motivated to modify the system of the combination of Malik, Housel, and Sachauchi by having the system of Malik communicate with a version of the G3 protocol that is compatible with the IEEE-1394 standard. This would improve the system by allowing it to be easily integrated into larger systems that are IEEE-1394 compliant.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1, 20, 32, and 37 have been considered but are moot in view of the new ground(s) of rejection. The examiner agrees with the applicant's position that the combination of Malik and Housel fails to teach storing information for logical connection (applicant: pg. 12 1<sup>st</sup> paragraph). Therefore, a new search was performed.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (703) 306-5622. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (703) 308-5463. The fax phone number for the

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organization where this application or proceeding is assigned is  
703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Ra*  
Ronald Abelson  
Examiner  
Art Unit 2666

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